



DEPARTMENT OF TRANSPORTATION

[4910-22-P]

Federal Highway Administration

[Docket No. FHWA-2013-0050]

Final Designation of the Highway Primary Freight Network

AGENCY: Federal Highway Administration (FHWA), Department of Transportation (DOT).

ACTION: Notice; Response to Comments.

SUMMARY: This notice publishes the final designation of the highway-only Primary Freight Network (highway-only PFN). Section 167(d) of title 23, United States Code (U.S.C.) requires the Secretary of Transportation to establish the highway-only PFN and re-designate it every 10 years, giving consideration to certain factors. This designation meets the requirements of the law, but the Department and a multitude of public comments recognize that the highway-only PFN fails to demonstrate that freight moves through a complex and extensive network of highways, railroads, waterways, pipelines, and airways. While specific commodities are likely to be moved on a particular mode or series of modes, a complex multimodal system is required to carry the growing volume of bulk and high-velocity, high-value goods in the United States. In addition, the 27,000-mile cap required by the law does not yield a PFN representative of all the critical highway elements of the United States freight system. While the Department is designating the highway-only PFN to meet the statutory requirements of the authorizing law, the Department is concurrently and simultaneously proposing a comprehensive

Multimodal Freight Network for public comment in the draft National Freight Strategic Plan to identify key infrastructure for all modes that is critical for the efficient movement of freight.

FOR FURTHER INFORMATION CONTACT: For questions about this program, contact Coral Torres, FHWA Office of Freight Management and Operations, (202) 366-7602, or by email at Coral.Torres@dot.gov. For legal questions, please contact William Winne, FHWA Office of the Chief Counsel, (202) 366-1397, or by email at William.Winne@dot.gov. Business hours for the FHWA are from 8:00 a.m. to 4:30 p.m., EST/EDT, Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access

You may retrieve a copy of the notice through the Federal eRulemaking portal at: <http://www.regulations.gov>. The Web site is available 24 hours each day, every day of the year. Electronic submission and retrieval help and guidelines are available under the help section of the Web site. You may also download an electronic copy of this document from Office of the Federal Register's home page at: http://www.archives.gov/federal_register and the Government Printing Office's Web page at: <http://www.gpoaccess.gov>.

Background

Section 167(c) of title 23, U.S.C., directs the Secretary to establish a National Freight Network (NFN) to assist States in strategically directing resources toward improved system performance for efficient movement of freight on the highway portion

of the Nation's freight transportation system, including the National Highway System (NHS), freight intermodal connectors, and aerotropolis transportation systems.

Under 23 U.S.C. 167(c), the NFN will consist of three components: the highway-only PFN, the portions of the Interstate System not designated as part of the highway-only PFN, and Critical Rural Freight Corridors (CRFC), which are designated by the States.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) limited the highway-only PFN to not more than 27,000 centerline miles of existing roadways that are most critical to the movement of freight. In addition, MAP-21 allowed an additional 3,000 centerline miles (that may include existing or planned roads) critical to the future efficient movement of goods on the highway-only PFN. The MAP-21 instructed DOT to base the highway-only PFN on an inventory of national freight volumes conducted by the FHWA Administrator, in consultation with stakeholders, including system users, transport providers, and States. The MAP-21 defined eight factors to consider in designating the highway-only PFN.

The eight factors are:

1. Origins and destinations of freight movement in the United States;
2. Total freight tonnage and value of freight moved by highways;
3. Percentage of annual average daily truck traffic in the annual average daily traffic on principal arterials;
4. Annual average daily truck traffic on principal arterials;
5. Land and maritime ports of entry;
6. Access to energy exploration, development, installation, or production areas;

7. Population centers; and
8. Network connectivity.

Section 167(d)(3) of title 23, U.S.C., mandates that the Secretary shall re-designate the highway-only PFN every 10 years. The highway-only PFN announced by this notice is the first iteration of the network.

Multimodal Freight Network

Freight in America travels over an extensive network of highways, railroads, waterways, pipelines, and airways: 985,000 miles of Federal-aid highways; 141,000 miles of railroads; 28,000 miles waterways; and more than 2.6 million miles of pipelines. There are over 13,000 airports in the United States, with approximately 500 serving commercial operations, and over 5,000 coastal, Great Lakes, and inland waterway facilities moving cargo. While specific commodities are likely to be moved on a particular mode or series of modes, a complex multimodal system is required to carry the growing volume of bulk and high-velocity, high-value goods in the United States. For freight shipments moving more than 750 miles (the distance beyond which the benefits of multimodal shipping are more pronounced), 35 percent of U.S. freight by value (including air freight and mails) moves on multiple freight modes. And while 70 percent of freight by weight and 64 percent by value is moved by truck, the goods moved may be processed foods, manufactured goods or other finished products that were carried on other modes or include raw materials that traveled by other modes during an earlier stage of production.

Public comments on the draft highway-only PFN requested consideration of a network that was reflective of the Nation's entire multimodal freight system. While the

DOT recognizes that freight is moved through the country by a complex multimodal system, MAP-21 mandated that the highway-only PFN consist solely of “existing roadways that are most critical to the movement of freight.” (23 U.S.C. 167(d)(1)(A)(ii)) As a result, the final highway-only PFN announced by this notice does not identify or prioritize other modal aspects of the U.S. freight system.

In recognition of the public comments indicating the need for a multimodal NFN that reflects the key components of each transportation mode in the nation’s freight system, DOT is concurrently and simultaneously proposing a comprehensive Multimodal Freight Network (MFN) as part of the release of the National Freight Strategic Plan. The Department engaged all DOT modes with freight relevance (Federal Highway Administration, Federal Railroad Administration, Maritime Administration, Pipeline and Hazardous Materials Safety Administration and the Federal Aviation Administration) in building an MFN to identify key infrastructure for all modes that are critical for freight movement.

As part of this multimodal effort, DOT considered the feedback provided on the designation of the highway-only PFN (described below in this notice) and built a multimodal network using revised thresholds and a modified set of criteria, without the constraints of a mileage cap. This MFN was designed to satisfy the National Freight Policy goals and objectives at a multimodal level. The DOT will seek additional feedback from public and private transportation stakeholders in order to better identify what the goals, objectives and future use of this MFN will be at the regional, State, and local levels. The Department will also work with stakeholders to identify critical urban and rural connectors and corridors.

The GROW AMERICA Proposal

In the Generating Renewal, Opportunity, and Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America Act (GROW AMERICA), the Administration proposed to improve national freight policy to give it a multimodal focus. To this end, the GROW AMERICA would streamline existing law by eliminating the highway-only PFN and CRFCs and establish a multimodal NFN to inform public and private planning, to prioritize Federal investment, aid the public and private sector in strategically directing resources, and support Federal decisionmaking. This network would consist of connectors, corridors and facilities in all transportation modes most critical to the current and future movement of freight in the national freight system. The proposal would ensure a more accurate and relevant network by shortening the period of re-designation to a 5-year cycle and would require consideration of public input, including that from Metropolitan Planning Organizations (MPO) and States on critical freight facilities that are vital links in national or regionally significant goods movement and supply chains.

Purpose of the Notice

The purpose of this notice is to publish the final designation of the highway-only PFN as required by 23 U.S.C. 167(d), provide information about the methodology and data used in the designation, and provide an analysis of the comments received on the draft designation of this network.

Final Designation of the Primary Freight Network

With this notice, the FHWA Administrator, based on the delegation of authority by the Secretary, officially designates the final highway-only PFN. This final designation

includes the same routes identified in the draft highway-only PFN, previously released on November 19, 2013 (78 FR 69520). Links illustrating the 26,966 miles on the highway-only PFN are available on the Web site maintained by FHWA

(<http://www.ops.fhwa.dot.gov/freight/infrastructure/pfn/index.htm>). The DOT provides this final highway-only PFN to comply with the requirements of 23 U.S.C. 167.

However, due to the challenges experienced in developing a network that would adhere to MAP-21 requirements and convey the full nature of the Nation's freight system, the Department recommends consideration of an alternative multimodal network using a revised methodology that includes criteria supported by the public comments on the designation of the highway-only PFN, such as the one proposed in GROW AMERICA or provided for public comment in the draft National Freight Strategic Plan.

Analyses of comments on the draft designation of the highway-only PFN and NFN

On November 19, 2013, FHWA published the draft designation of the 27,000-mile highway-only PFN in the Federal Register at 78 FR 69520. The initial notice also provided a larger network of routes (a 41,518-mile comprehensive highway-only PFN) for consideration and information regarding State designation of the CRFCs and the establishment of the complete NFN. The FHWA asked stakeholders to review the draft highway-only PFN and provide feedback.

Stakeholders requested additional time to analyze the draft highway-only PFN methodology, maps, and the highway-only PFN's potential impact on their communities. In response to these requests, FHWA twice extended the public comment period. The comment period closed on February 15, 2014, at which point the docket recorded a total of 307 responses, including over 1,200 discrete comments. The following section

presents a quantitative and qualitative analysis of the trends, themes, and patterns identified in the public comments.

Comments by Organization Type

The initial highway-only PFN notice generated comments from a range of stakeholders in the private and public sectors. The following table identifies the number and percentage of comments received by organization type. The majority of comments came from MPOs, local government agencies, and State DOTs.

Public or Private Stakeholders	Organization Type	Number of Comment Entries	Percentage of comments ¹
Private	Business	22	7.2%
	Industry Association	21	6.8%
	Private Citizen	21	6.8%
Public/Private	Port	12	3.9%
	Other	33	10.7%
Public	State DOT	51	16.6%
	Federal Agency	2	0.7%
	Foreign	1	0.3%
	Local Government Agency	64	20.8%
	Metropolitan Planning Organization	68	22.1%
	Other State Agency	5	1.6%

¹ Due to rounding, figures do not add to 100 percent.

	Regional Commission	2	0.7%
	Congress	5	1.6%
	Total	307	100.0%

Comments by Subject Area

The FHWA asked stakeholders to review the draft highway-only PFN and provide feedback on five topics:

1. Specific route deletions, additions or modifications to the draft designation of the highway-only PFN as outlined in the notice;
2. The methodology for achieving a 27,000-mile final designation;
3. How the NFN and its components could be used by freight stakeholders in the future;
4. How the NFN may fit into a multimodal National Freight System; and
5. Suggestions for an urban-area route designation process.

Most responses addressed two or more of the five topics, with 33 percent focusing on the methodology and 21 percent commenting on route deletions, additions, or modifications.

Type of Comment	Number of Comments	Percent of Total Comments ²
1. Specific route deletions, additions or modifications	267	21.2%
2. Methodology for a 27,000 mile designation	419	33.3%

² Due to rounding, figures do not add to 100 percent.

3. NFN use by freight stakeholders in the future	105	8.4%
4. NFN and a multimodal National Freight System	135	10.7%
5. Suggestions for an urban route designation process	174	13.8%
6. Funding Issues	108	8.6%
7. Request for Comment Extension	6	0.1%
8. Other	43	3.4%
Total Comments	1,257	100%

Specific Route Additions, Deletions or Modifications

The highway-only PFN Web site provides information on the requested additions, deletions and modifications to the highway-only PFN as well as a map reflecting these routes and segments, which totaled approximately 8,400 additional or modified miles and 230 miles proposed for deletion. This information can be found in the following Web site: <http://www.ops.fhwa.dot.gov/freight/infrastructure/pfn/index.htm>.

Additions

The majority of comments related to route changes suggested that FHWA consider the addition of specific road segments and facilities. However, in some cases, respondents requested that entire State and Interstate highways be included. The comments requesting that routes be added to the highway-only PFN most often cited one of the following reasons:

1. Incorporating roads necessary for improving current freight movements;
2. Incorporating roads necessary for planning future commodity growth on the segment;

3. Affirming local freight planning efforts that identified the segment and/or facility as a major critical freight route or generator;
4. Incorporating roads necessary to close gaps and connect one facility, city, region, or State to another;
5. Incorporating roads necessary for resolving omissions of key segments and facilities such as those with major significance to national security and/or goods movement. Examples include: military facilities, airports, ports, bridges, rail yards and intermodal connectors;
6. Including the “first” and “last” mile of freight movements on routes designated in the draft highway-only PFN;
7. Incorporating a route or facility related to an international trade corridor;
8. Incorporating roads based on traffic counts and truck data indicating the segment is a critical link in the area’s freight network;
9. Incorporating roads identified in the past by FHWA as a “Corridor of the Future” or that may become critical to the future movement of freight; and/or,
10. Including new, planned roads that, when constructed, will--
 - Provide continuity in the freight network;
 - Provide a connection to population centers;
 - Provide connectivity to intermodal facilities;
 - Relieve congestion on existing Interstates; and
 - Provide benefits to national commerce as a route in a long-distance trucking corridor.

Deletions and Modifications

Some respondents submitted requests for deletions and/or modifications to the highway-only PFN. The reasons offered for these requests included the following:

1. A desire to emphasize a different or more logical route than that included in the highway-only PFN (respondents often expressed that their agencies conducted evaluations using a different methodology or criteria that yielded other routes as more freight-relevant than the ones proposed in the draft highway-only PFN);
2. A desire to discourage non-local truck traffic through an area such as a neighborhood, commercial district, or downtown; requests to remove local streets not connected to freight facilities; and
3. Erroneous or outdated facility names.

The FHWA appreciates the comments requesting additions, deletions, or modifications to the draft highway-only PFN. In analyzing the route-related comments, FHWA determined that the level of information or data solicited in the draft highway-only PFN designation and provided through comments did not provide the specificity necessary to make accurate or consistent modifications to the network. For example, in order to change a route designation it is important to have mile marker identification of segments and common data years (in the case of data-driven segments). Although some respondents provided information such as beginning and end points or name of a route or facility (such as a specific intermodal connector), their requests to add, delete, or modify the designation of the routes and facilities did not comply with the criteria and threshold used for the draft designation, or different data sources were used as a justification.

Despite the lack of specificity in the data provided by commenters, many additions and modifications reflected some aspect that FHWA considers relevant for the efficiency, reliability, safety, and sustainability of the freight system and may have been incorporated into the highway-only PFN if not for the current mileage cap imposed by the law. Therefore, although no route modifications were made for the final designation of the highway-only PFN, FHWA considered these requests in its development of an alternative multimodal freight network, which is discussed in further detail in the National Freight Strategic Plan as displayed here:

<http://www.transportation.gov/policy/freight/NFSP>.

Methodology for Achieving a 27,000-Mile Designation

Approximately 420 comments addressed the methodology for achieving a 27,000-mile designation. The commenters expressed concern regarding the complexity of the process for developing a highway-only PFN that incorporates the criteria identified in MAP-21 and appreciated the challenge of adhering to only 27,000 centerline miles of roads. Other comments were critical of the criteria, concept, and data used for the designation. The following subsections summarize comments on the methodology.

Limitations of the 27,000 Centerline Miles Threshold

Comments regarding the highway-only PFN's centerline mileage threshold expressed concern that combining multiple network criteria with a mileage cap does not yield a highway-only PFN representative of the most critical highway elements of the United States freight system. Virtually all respondents preferred the sample 41,518-mile "comprehensive" (yet highway-only) network offered by DOT for comparison. Some respondents recommended that DOT work with Congress to develop statutory language

to designate a more comprehensive and connected highway freight network that links directly to other freight modes. These commenters asked that Congress either 1) eliminate or raise the mileage threshold, or 2) use a corridor basis instead of the statutorily required centerline roadway mile basis. Some respondents sought a connected 27,000-mile network of key freight routes but did not provide a specific set of criteria. Others proposed that the highway-only PFN incorporate the entire Interstate System in a non-statutory designation. Respondents also noted that the comprehensive network (e.g., the 41,518-mile network) included many of the highway freight routes necessary to ensure sufficient connections to Land Ports of Entry (LPOE) to Mexico and Canada and maritime ports of entry in coastal states that are important for the Nation's global competitiveness.

Section 167 of title 23, U.S.C., specifies that the highway-only PFN designation cannot exceed a cap of 27,000 centerline roadway miles. Therefore, in order to comply with Federal law, the final highway-only PFN designation comprises no more than 27,000 centerline miles (and includes the LPOEs for the most freight-active border crossings by truck volumes).

Highway-only PFN Criteria and Designation Methodology

This subsection discusses the comments on the statutory criteria and the methodology developed by FHWA for the highway-only PFN designation process. Some respondents proposed reconfiguring the highway-only PFN to connect significant freight origins and destinations for agriculture, energy production, manufacturing, mining, and national defense to other key infrastructure such as the Interstate system, ports of entry, and intermodal connectors. Some respondents expressed concern that agriculture was not

listed as a specific factor for consideration. They felt that the factor pertaining to the value of goods failed to give sufficient weight to the movement of agricultural products. These respondents commented that the NFN should directly address the importance of agriculture to the U.S. and, without this focus; the resulting network would be flawed. They suggested the use of criteria to better reflect the movement of agricultural products by truck from field to market, directly or by railheads, rather than measuring the movement of imported goods. These commenters cited domestic agricultural commodities as being vital to the U.S. economy and the health and well-being of the U.S. population and stated that agricultural goods are among the most significant generators of truck-freight in several States. Some of these respondents commented that identifying routes in the NFN can enhance energy, agricultural, and natural resource freight movement and provide new opportunities for economic development.

In response, FHWA acknowledges that to better represent the movement of agricultural products on the freight system, it would be necessary to consider the data and the road-, rail-, air- and water-based routes of a multimodal freight system. National data shows agricultural products as being some of the top commodities under current models and forecasted trends. The current highway-only PFN methodology does not prioritize for type of commodity and was intended to be supplemented by CRFCs that could include routes serving key agricultural facilities. The FHWA believes a multimodal freight network map would more accurately depict the movement of agricultural commodities, which move by truck, rail, or barge, or combinations of these methods.

Respondents also expressed concern for the lack of sensitivity in the model to routes seasonal fluctuations and spikes in volumes that have low annual averages, such as

agricultural or forest products routes and energy development, production, and extraction areas. They felt that the freight mileage on these routes does not meet the highway-only PFN threshold yet still accommodates a degree of truck traffic relevant for inclusion in the network. Some comments proposed a separate prioritization process for seasonally critical agricultural corridors beyond the CRFCs designation established in MAP-21 and a shorter re-designation cycle of the NFN and highway-only PFN to better capture these trends.

In response, FHWA acknowledges that additional research, data and refinements to the model could be developed to capture freight surges. The FHWA will consider opportunities for incorporating seasonality or surges into future network development.

Respondents also suggested modifications to the methodology and different thresholds for the criteria. Some noted that the initial step of the methodology should be changed to identify critical freight nodes. In this alternative methodology, the highway-only PFN would represent roadways that support certain critical freight nodes rather than a subset that carry the most freight (the format for the current methodology). The alternative methodology would then use additional analysis to define the subset of roadways most critical to serve these nodes. Respondents noted that by focusing on identifying critical roadways closest to freight nodes, this methodology would better assist States in strategically directing resources toward improved system performance for efficient movement of freight on the highway portion of the Nation's freight transportation system.

In response, FHWA notes that it explored the development of a highway-only PFN that started with critical freight nodes (predominantly urban areas and freight-

intensive border crossings) and built out from these points. After analyzing the data and simulating the network, the Department selected a hybrid approach that used origin and destination data from the Freight Analysis Framework (FAF) and cross-referenced it with these nodes using Average Annual Daily Truck Traffic (AADTT) as a guide for how freight moves, by both tonnage and value, between nodes. There are many ways to develop the highway-only PFN, and that is in part why the FHWA sought public comment on the methodology. The FHWA felt that a node-based map would require leaving routes within a node undesignated, as FHWA lacked data specificity for these routes. As a result, use of a node-based map would require an additional step and time to obtain public input or to develop better data.

The comments noted that while the methodology itemized several factors considered for the draft network, it appears the base was drawn using AADTT and then adding or subtracting to accommodate each of the other factors. Respondents believed this may give undue weight to densely populated regions with the associated large regional distribution movements. Respondents also noted that this led to illogical results that appear to be related to data discrepancies between States.

Comments also addressed thresholds for the criteria used for designation. Several comments flagged the limits for AADTT and population used in the designation process as being too high. In particular, comments noted that the AADTT threshold of 8,500 trucks to identify roadway segments was set too high and precluded the establishment of a rational and connected national network, which they argued was the fundamental task of the national designation. Respondents advocated for a percent of trucks in the AADTT and a 1,500 AADTT threshold for the highway-only PFN. The commenters felt

that these changes could provide a more useful picture of the freight economic corridors the Nation relies on to support interstate and international commerce.

Respondents also noted that the functional classification of roadways should be changed to include collectors and above, and to consider the allowance of lower vehicle classifications of truck traffic. Others argued that the percentage of trucks should not be the deciding factor but rather one of many factors considered for highway-only PFN designation, including connectivity to and between freight facilities. Finally, respondents believed the 25 percent AADTT requirement proposed for designating a CRFC corridor would be too restrictive for identifying urban area routes; they proposed using a separate data threshold for urban area freight corridor designation.

In response, FHWA acknowledges that AADTT levels had a fundamental role in the highway-only PFN designation process. The FHWA selected the AADTT and percent of truck traffic thresholds to meet the 27,000-mile limitation set in statute. The CRFC threshold of 25 percent truck traffic was set by statute in MAP-21. When identifying data from certain roadway classification and truck types, the FHWA focused on aspects of freight that would be most relevant to national goods movement, while also limiting the scope of the highway-only PFN to meet the mileage threshold.

Respondents expressed that to develop the highway-only PFN effectively, FHWA must provide a stronger consultative role for State DOTs to identify the critical individual State components of the highway-only PFN. They felt that FHWA should build as much flexibility into the designation process as possible, especially by providing the States with an opportunity to identify an alternative network of freight highway routes or corridors.

Further, the States were thought to be in the best position to regularly review the designated network for updates and revisions.

In response, FHWA agrees that involvement of State DOTs, MPOs, local agencies, and the private sector is key to developing a national or primary freight network. The FHWA also recognizes the need to have national consistency in the approach and scale of facilities included on a freight network. The FHWA encourages States to use State Freight Plans and to consult with State Freight Advisory Committees to identify facilities most critical to freight movement in each State.

A few comments recommended using the United States Census definition for urban areas instead of those with a population of 200,000 or more. In the Census definition, urbanized areas consist of territory that contains 50,000 or more people. Respondents criticized FHWA's use of the higher population threshold to meet the "arbitrary" limit of 27,000 centerline miles. Respondents noted that significant national and international trade flows to and from mid-size communities across the country are missed at the 200,000 population level.

In response, FHWA recognizes that the approach employed for connecting population areas of 200,000 or greater risks bypassing areas of important freight activity. However, FHWA encountered difficulty keeping the highway-only PFN to under 27,000 centerline roadway miles under scenarios that included all population centers of 50,000 or more people.

Furthermore, the lack of a stated application for the highway-only PFN and NFN introduced uncertainty into the designation process. Without a better understanding of the goals for the highway-only PFN, it was challenging to weight the factors for

designation and to gauge which resulting network would best meet freight planning and investment needs. Each individual criterion yields different network coverage when compared to the other factors. The FHWA undertook an extensive research effort to fully understand the challenges of the proposed criteria and to develop a methodology that would generate the most comprehensive network. This resulted in dozens of scenarios that did not satisfy the mileage cap or the inclusion of all of the statutory criteria. The aggregation of these factors results in a map that is difficult to limit to 27,000 miles without some significant prioritization of the factors and their thresholds. Further, FHWA acknowledges that the 27,000-mile highway-only PFN does not meet the statutory criterion for network connectivity. To fix these problems, the alternative methodology applied by FHWA during the highway-only PFN development resulted in the second, comprehensive map that exceeded the statutory cap but is inclusive of all the criteria suggested in MAP-21 and reaches more population centers.

Centerline versus Corridor Approach

The majority of respondents expressed concern regarding the fragmented nature of the highway-only PFN. While it was widely understood that the non-contiguous highway-only PFN resulted from a need to meet competing statutory factors under a mileage threshold, respondents recommended that FHWA designate a continuous and linked multistate network of transportation infrastructure that provides a high level of support for international, national, and State economies. Some suggested the highway-only PFN use a corridor approach instead of the statutory requirement for measuring centerline roadway miles. Respondents agreed with FHWA's suggestion that corridor-

level analysis and investment has the potential for widespread freight benefits and can improve the performance and efficiency of the highway-only PFN.

These respondents provided suggestions for a more comprehensive corridor-based approach to the highway-only PFN to designate multiple parallel routes in each region that provide a high level of support for international, national, and State economies and connect regional population and economic centers. Comments noted that the use of corridor miles rather than centerline miles would allow greater flexibility for States and local jurisdictions for funding opportunities and in applying future performance measures, not only to a single identified route but also to important intermodal and urban connectors as well as nearby parallel routes for use in freight-related congestion mitigation. In addition, commenters noted that these corridor designations will better correspond to a truly multimodal freight network to avoid or allow (as needed) route redundancies between all surface modes.

In response, FHWA agrees that a corridor approach for a highway network allows for coverage of multiple routes as well as freight facilities that satisfy the criteria in MAP-21. However, such an approach will not meet the centerline highway miles requirement of MAP-21. Also, because MAP-21 directed the Secretary to create a highway-only PFN, the lack of consideration of water freight and rail freight movements yields an incomplete representation of the nation's freight corridors.

Data Limitations and Accuracy

The majority of comments that discussed the sources and limitations of data agreed that the national data sets utilized in the development of the draft highway-only PFN were insufficient to understand fully the behavior of freight at the regional and local

levels. Respondents mentioned that the data used to develop the highway-only PFN do not accurately reflect freight movements at the State, regional, and local level and that the designation of this network relies on outdated information. Points raised included concerns that existing sources of data are fragmented, incomplete, and often not useful in supporting transportation operations, policy, and investment decisions. For example, one State noted that the Functional Classification Evaluations in their State had not been updated for over 20 years.

Respondents also expressed a view that the quality of the Highway Performance Monitoring System (HPMS) data, which were used to identify AADTT, varies greatly from State to State and depends upon the quantity and location of counts, the age and frequency of counts, and the upkeep of counting equipment. Respondents also felt that the highway-only PFN methodology did not take into account more complete and accurate data available from States, MPOs, and other local stakeholders. Comments suggested that FHWA coordinate with the States and their planning partners to ensure the currency and validity of the data sources that support the analyses conducted over the course of MAP-21 policy development and implementation. Respondents suggested that the next reauthorization fund a comprehensive data program that enables DOT, States, and MPOs to undertake the freight analysis and planning called for in MAP-21 at the national, State, and regional levels. Comments indicated that such a program should include safety data. Because significant freight facilities for energy transport appear in more remote areas and in outlying urban areas, respondents noted that data should capture information in rural and smaller outlying urban areas, as well as major metropolitan centers.

Comments noted that access to private sector data is needed as well as other proprietary sources of real-time data. Respondents noted that such data can be used to map the most critical first- and last-mile segments, including rural areas. Comments also recommended giving DOTs and MPOs access to reliable and inexpensive data to conduct sound planning.

In response, FHWA notes that goods movement occurs in a very fluid environment. During the development of the draft highway-only PFN, and as an internal reference point of comparison to an earlier mapping effort, FHWA took the major freight corridors map that was originally developed for Freight Story 2008 and ran an analysis in the spring of 2013 to see how that map would look using current data. The Freight Story 2008 map contained 27,500 miles: 26,000 miles based on truck data and parallel intermodal rail lines and 1,500 miles representing goods movement on parallel major bulk rail lines or waterways. Using the same methodology with 2011 HPMS and rail data, data revealed that the mileage based solely on the truck and intermodal rail activity had grown to over 31,000 miles of roads since 2008, not including consideration of growth in other freight modes on parallel major bulk rail lines or waterways.

The FHWA recognizes that the data utilized for the development of the final highway-only PFN comprises the best information available on freight behavior at a national level. Nevertheless, national data is not sufficient to understand fully the behavior of freight at the regional and local levels. In particular, urban areas include a freight-generating population and in most cases, are the site of significant freight facilities where highway freight intersects with other modes at rail yards, ports, and major airports. These “first- and last- mile” connections, which also occur in rural areas, do not

always show up in data sets. In order to develop a network that provides a better picture of freight in urban and rural areas, additional data collection at State and local levels is needed to improve the assessment of local and regional freight trends. This will require coordination with stakeholders at a local, State, and regional level. This data could provide a better understanding of seasonal and regional trends around the country that national data sets often do not capture.

The FHWA acknowledges a continuing national need for more robust data collection methods. The FHWA also acknowledges that additional coordination with MPOs and State DOTs is needed for future designation of the highway-only PFN and any other freight networks to address some of the data issues of the final highway-only PFN. As part of its development of an MFN and for any future designation of the highway-only PFN or other freight networks, DOT will seek additional coordination with MPOs and State DOTs to address some of the outlying issues remaining in this iteration of the network.

NFN Use by Freight Stakeholders in the Future

Because MAP-21 did not provide a specific purpose for the highway-only PFN, it was challenging to establish thresholds in the methodology and prioritize criteria to achieve the mileage limitation when it was unclear how the highway-only PFN and the NFN would be utilized. To better inform the process, FHWA sought comments on how the NFN and its components could be used by freight stakeholders in the future. A number of respondents echoed the concern that the future use of the NFN and highway-only PFN could not be identified without understanding its purpose and goals in relation to transportation policy and programs. Respondents requested additional information

from DOT and Congress, with some recommending that the next transportation bill clearly identify a policy and provide funding for NFN or highway-only PFN facilities.

Many comments linked the highway-only PFN to funding, believing the highway-only PFN would be eventually be used to prioritize funding for projects. Some respondents proposed that Congress use this network for strategic investment in freight on a national network of key freight routes by specifically directing Federal highway funding through a formula program apportioned to States. They felt it would be appropriate for Congress to direct most of this funding to the NFN, with the addition of urban routes. There was concern about using the more limited highway-only PFN to allocate or apportion resources without making adjustments to the methodology. Suggestions for improving the map for directing investment included using the NFN, which includes the Interstate System, and adding urban routes, intermodal connectors, and last- and first-mile connectors.

Some respondents indicated funding should not be directed until the designation is vetted by States and MPOs and that resources should not be directed away from other highway programs to fund NFN-related projects. Respondents also suggested that DOT work with Governors to develop and evaluate funding options for a multimodal NFN that takes into account States' transportation infrastructure assets and limitations as detailed in State Freight Plans. The notice elicited concerns relating to restrictions on the ability to shift infrastructure funding to non-designated facilities and the potential assessment of freight user fees.

Other commenters were concerned that the NFN or highway-only PFN would be used in the future to impose restrictions on how the designated infrastructure could be

used or impose minimum investment requirements. In addition, commenters raised concerns regarding the ease and speed of the re-designation process. Commenters also cautioned against using this network to direct the use of private property. Respondents requested that these and other potential issues be given consideration and that the government offer carefully structured and definitive guidance. In the absence of such guidance, respondents stated that they could not fully support the designation of any infrastructure, public or private, as a part of the highway-only PFN.

Respondents viewed the NFN as a tool to facilitate a closer working relationship between the government and private sectors who share an interest in a fully-functioning freight system. Having State DOTs, MPOs, trucking companies, the manufacturing and warehousing industries, and other highway freight stakeholders participate in a closer working relationship would be helpful to determine where limited highway funding can best be invested and where it will have the greatest and most widespread positive return on investment. Respondents supported the use of the network to strategically direct resources to improve system performance for efficient movement of freight on the highway portion of the National Freight System. They projected that the most important outcome would be the ability to identify and focus attention on the highways and related projects that would target freight mobility problems and lead to improved freight flow to maintain and enhance U.S. economic activity.

Respondents mentioned that the NFN may be a useful resource or tool in developing State Freight Networks and State Freight Plans. Respondents felt that designation of a highway-only PFN could aid States in such freight planning efforts as the designation of CRFCs, the development and update of State Freight Plans, input to

State Freight Advisory Councils, and other planning activities. Respondents recommend that FHWA give greater weight to factors that States suggest, including consideration of State Freight Plans that may already be developed.

Respondents commented that the highway-only PFN could provide the locations to target for valuable data collecting efforts to measure the fluidity of highway freight network. For example, the identification of segments with the highest AADTT could provide the location of potential capacity constraints and congestion issues.

In response, FHWA appreciates the concerns related to the lack of a stated application for the highway-only PFN and NFN. Without a better understanding of the goals for the highway-only PFN, the FHWA found it challenging to weight the factors for designation relative to one another and to gauge whether the resulting network would meet future public planning and investment needs. Each individual criterion yields different network coverage when compared to the simulations for the other factors. The aggregation of all the suggested criteria resulted in a map that was difficult to limit to 27,000 miles without some significant prioritization of the many factors and application of numerical thresholds in each measure.

The FHWA believes a multimodal NFN as described in the Department's GROW AMERICA surface transportation proposal will have the ability to inform public and private planning, to help prioritize for Federal investment, to aid the public and private sector in strategically directing resources, and to support Federal decisionmaking to achieve the national freight policy goals.

NFN and Multimodal National Freight System

Respondents provided feedback on how the NFN fits into a larger multimodal national freight system and how to define a multimodal national freight system. Nearly 11 percent of the comments addressed this topic. The majority of respondents on this topic acknowledged that the highway-only PFN is a highway-only network and that the highway-only PFN and NFN are therefore incomplete in their representation of the multimodal system that is required to efficiently and effectively move freight in the United States. The FHWA agrees with these comments.

Comments suggested the highway-only PFN be designated in a way that would ensure future inclusion of the other freight modes that comprise the Nation's freight and goods transportation system. Respondents also voiced concern that the draft highway-only PFN did not include most of the segments that make up the first and last mile of key freight movements, which include local roads providing access to ports, intermodal facilities, rail yards, and other freight facilities. FHWA agrees with these comments.

Most respondents recognized these omissions were the result of the mileage cap and recommended FHWA advocate for the elimination of the mileage threshold. The FHWA agrees with these comments and has taken action by addressing this in both the Department's GROW AMERICA surface transportation proposal and the National Strategic Freight Plan.

Respondents believe that the highway NFN could be an important modal component of a multimodal national freight system, but that the NFN is not sufficient to describe the entirety of a system that moves freight by a variety of modes. The FHWA agrees with these comments.

Some comments strongly encouraged DOT to focus the National Freight Strategic Plan and other freight transportation work on the entire multimodal freight system, and recommended that the final highway-only PFN and NFN maps be overlaid with intermodal connectors, ports of entry, marine highways (waterborne routes), important inland river corridors and Class 1 rail lines to show a more comprehensive surface transportation network critical to the movement of freight. The FHWA agrees with these comments and has followed this recommendation.

Comments indicated the NFN should be combined with the other modes of transportation to form a true multimodal system that operates economically, efficiently, and harmoniously in the movement of freight both nationally and internationally. Respondents suggested building upon the FHWA's initial 41,518 centerline mile highway network as a basis for ultimately developing a more comprehensive, multimodal freight network. In addition, comments noted that FHWA and State DOTs should compare the highway freight network map with strategic freight railroad, waterway system, and aviation maps to locate connectivity gaps. Commenters recommended that highway routes connecting to intermodal facility locations be included in the NFN to ensure that the network reflects a well-connected multimodal freight system. The FHWA agrees with these comments and believes this is an activity that should be undertaken by DOT in consultation with States and MPOs.

Many respondents supported the expansion of this network to a more broadly defined multimodal network. They recommend that dedicated funding be made available to support projects included in an approved Regional Transportation Plan to enhance the performance and efficiency of the highway-only PFN and NFN, as well as to mitigate

adverse freight movement impacts on surrounding communities and include eligibility for highway-rail grade separations and other mitigation projects located along nationally significant trade corridors.

In summary, FHWA agrees with the comments. In response to these recommendations, FHWA is providing the final designation of the highway-only PFN as required by MAP-21, while concurrently and simultaneously releasing a MFN as part of the National Freight Strategic Plan. The release of this Plan coincides with the issuance of this notice, and the Department will seek public comment on its proposed MFN.

Suggestions for an Urban-area Route Designation Process

State DOTs and MPOs provided comments in partnership with freight facility owners in support of a metropolitan area designation process similar to the CRFC designation. The comments included suggestions for methodologies and more precise data that could be used in the identification of these critical urban freight routes. Almost 14 percent of total comments related to this topic.

Supporters felt this additional network modification is necessary to improve the accuracy and utility of the highway-only PFN. These commenters felt that the next reauthorization should make provisions for designation of urban freight routes and connectors. It was noted that metropolitan areas are the economic engines of the 21st Century economy and that most of the population and most of the high-value and high-tech manufacturing is in metropolitan areas. Comments also noted that much of the cost of moving freight is the result of the congestion encountered in urban areas.

Respondents envisioned that the FHWA would reach out to local stakeholders to establish a formal urban-area route designation process and methodology. They felt

strongly that State DOTs and urban representatives should be allowed to provide input on what factors might drive urban designations within the highway-only PFN. Respondents indicated they believe that State DOTs, MPOs, and other local agencies have the knowledge and data to identify the critical urban-area freight corridors and therefore these agencies should be responsible for identifying the critical urban routes and submitting these to FHWA.

Some comments proposed that FHWA provide the framework and basic guidelines for designation, but give States the ultimate responsibility in establishing parameters and thresholds, in addition to identifying the routes for inclusion in the network. The limits to be set by the States and localities, as proposed by the commenters, would take into consideration the freight demand relative to a State's population, consumption and production, and commodity flows for designating both rural and urban freight systems.

Respondents suggested the use of the following criteria for the Critical Urban Freight Corridors (CUFC) designation: 1) high truck volume corridors; 2) strategic military facilities; 3) connections to major intermodal facilities; 4) significant freight intensive land uses on manufacturing and warehouse industrial lands; 5) energy exploration, development, installation, or production areas; 6) areas of significant congestion and delay for trucks; 7) locations of at-grade highway rail crossings; 8) number and severity of truck crashes; 9) geometric deficiencies that inhibit safe or efficient truck movement; 10) negative community/environmental impacts caused by truck traffic; 11) motor carrier enforcement and safety efforts; 12) availability of overnight or safe truck parking; 13) connections between major points of entry or key trip

generators and the highway-only PFN (supported by locally derived data and analysis); 14) connectivity with the other elements of the NFN; and 15) freight value. Commenters did not support the inclusion of truck percent of AADT because they felt that it had little relevance in urban areas.

Respondents expressed the view that both the national freight strategy and the networks should include consideration for the urban first and last miles needed to make a complete freight trip.

Others suggested that FHWA should not set the thresholds for truck volume and percent for urban areas, but instead should require that each State set the truck volume and/or truck percent thresholds for their State. The commenters suggested that the context of percent truck traffic and/or truck volumes varied significantly across the country with regard to each State's consumption or production of goods and services and as a result, the thresholds should not be standardized for the Nation.

In addition, comments noted that States should be responsible for working with State freight stakeholders as well as MPOs and Rural Planning Organizations (RPO) in the designation of such systems within their respective State and that States should coordinate with neighboring States to ensure systems take into consideration multistate freight flows. They also noted that as with the CRFC designation process, this process should allow flexibility for States and metro areas to determine the most strategic and important freight routes.

Respondents believed that engaging State DOTs and MPOs in proposing urban-area freight routes would maximize the utility and relevance of each agency's existing freight planning processes, plans, and study initiatives. They felt that by elevating the

responsibility of State and local entities to identify criteria, set targets, and identify CUFCs, freight planning would be in the forefront and freight plans would be aligned with other transportation, economic development, and environmental plans or programs.

In response, FHWA recognizes that many highway freight bottlenecks, chokepoints and first and last mile connectors are located in both rural and urban areas. This makes these areas critical to the efficiency of domestic and international supply chains. Although Federal law provided a mechanism to enable connectivity to critical freight “last mile” origins and destinations in rural areas through the designation of CRFC by the States, the language in 23 U.S.C. 167(d) lacks a parallel process for designating critical urban freight routes to address the need for connectivity to urban areas. Further, public and private sector representatives are increasingly emphasizing the significant role of cities and metropolitan areas in the safe and efficient movement of freight.

Given the lack of precision of national data at the urban level, FHWA believes there is merit in establishing a process for MPOs, RPOs, and State DOTs to designate critical urban freight routes and critical rural freight corridors that may have been missed when analyzing national-level data but are nonetheless important for freight movement to, from, and through an urban and rural areas. The FHWA recognizes that cities are best positioned to understand the complexities of freight movement in individual urban and rural areas, including current freight movement patterns, and plans or projections for shifts in freight movement within these areas, and could assist in the identification of thresholds for use in the designation of CUFCs.

In response to these comments, FHWA has begun developing preliminary concepts to aid in the designation of freight corridors should they be included in future legislation. The Department has also included language in GROW AMERICA surface transportation proposal that incorporates additional criteria in a NFN designation that gives consideration to bottlenecks and other impediments contributing to significant measurable congestion and delay in freight movement, facilities of future freight importance based on input from stakeholders, and an analysis of projections for future growth and changes to the freight system. In addition, the Department included language that considers elements of the freight system identified and documented by States and MPOs using national or local data as having critical freight importance to the region as part of the NFN.

Funding Issues

Nearly 9 percent of total comments received mentioned funding. In general, respondents believe that the value of the highway-only PFN is limited without the provision of dedicated resources to address freight needs. Some referenced the need for these funds to maintain and enhance a multimodal national transportation system. Some commenters felt that existing Federal funding should not be diverted to the NFN unless current program funding levels could at least be maintained or expanded. Comments also noted that State DOTs and MPOs cannot fully comment on the impact of NFN designations without understanding the potential funding implications, which are not addressed in MAP-21. Further, they cautioned that the NFN should not be used to direct State or Federal investment in freight transportation systems until the network has been revised to reflect highways that serve continuous and efficient freight flow.

The commenters also suggested that planning and policy work would be of limited value if funds are not provided to realize the planning vision. Comments noted the highway-only PFN and an expanded multimodal national freight system could help make the case for a program that leverages local, regional, and private funds to invest in critical freight infrastructure needs.

Others respondents expressed concern about supporting a system that lacks connectivity and does not accurately represent freight trends. As previously discussed in this notice, some respondents recommended refraining from using the NFN for directing State or Federal investment in freight transportation systems. They noted that when the NFN has been restructured to reflect highways that serve continuous and efficient freight flow and is supported by Federal funds accordingly, freight stakeholders should be able to use this system as a benchmark around which to center economic activity and investment. Others mentioned that they will likely focus investment and other decisions on the strategic freight network designated in their State freight plan rather than the NFN. Comments noted that some jurisdictions have already designated a strategic freight network of key corridors which connect additional areas of the State and provide redundancy to Interstate corridors.

Most respondents expressed new funding should be prioritized to support sustainable economic vitality and global competitiveness for the U.S. Some respondents stated that this funding program should support national freight movement through enhancing the NFN by funding highway traffic count stations, truck weigh stations, truck rest area facilities, state of good repair for freight-traveled pavement and bridges, and operations management priorities such as congestion management and travel time

reliability. Respondents suggested that funding could also be made available to support freight projects included in an approved Regional Transportation Plan or Transportation Improvement Program. In their view, these projects should be prioritized on the basis of demonstrable contribution to the performance and efficiency of the highway-only PFN and NFN, as well as to mitigate adverse freight movement impacts on surrounding communities.

Respondents also noted that although MAP-21 provides modest funding for the Projects of National and Regional Significance (PNRS), they felt that the PNRS program should be expanded to provide freight funding using a more robust, multimodal PFN. They suggest an expanded PNRS program should build on considerable past efforts, including the freight corridor designations and funding program established under the previous Federal transportation authorization, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

In response, FHWA recognizes the need for additional freight investment in the U.S. That is why the GROW AMERICA proposes a six-year, \$9 billion multimodal freight incentive program and a 6-year, \$9 billion national freight infrastructure program. Given the increased emphasis on transportation performance management, FHWA believes it is prudent not to limit funding to a specific facility on a network map but to allow State and local governments, the private sector, and other entities to determine the best solutions to improving the safety and efficiency of the freight system through data and analysis in State Freight Plans and with the active engagement of the State Freight Advisory Committees.

Other Issues Raised in Comments

The sections below summarize comments received on other issues raised in response to the solicitation of comments on the draft highway-only PFN.

Primary Freight Network Update Cycle

Several comments raised concerns regarding the 10-year timeframe for updating the highway-only PFN. Comments expressed that this length of time does not reflect the changing nature of economic patterns and goods movement. Comments noted there are constant changes in market trends, population, infrastructure, technology, data, demographics, globalization, and investment. Respondents believe that a 10- or 20-year cycle will not allow policy makers and stakeholders to make optimal use of time, resources, and funding. With the MPO planning process based on a 4-year cycle, and freight and rail plans updated on 5-year cycles, respondents recommended FHWA pursue reducing the update cycle to match other metropolitan transportation planning cycles or at a minimum, provide an amendment process that enables States to request and receive approval for highway-only PFN changes between 10-year updates.

In response, FHWA agrees that the current 10-year update cycle is not sufficient. The FHWA does not have statutory authority to change the re-designation cycle but has proposed a 5-year update cycle in the GROW AMERICA surface transportation proposal. The Department will also be proposing a 5-year update cycle as part of the MFN in the National Strategic Freight Plan.

Highway Safety Considerations

A small number of respondents raised the issue of highway safety and the highway-only PFN. Stakeholders noted that safety issues and performance measures should be considered in the establishment of the NFN. These comments emphasize that

safety data needs to be part of the analysis and improving safety on our freight systems should be a goal of any Federal action related to the establishment of a NFN. Comments noted that factors should include freight moved by trucks, truck crash rates, the underlying causes of highway deaths and injuries, and infrastructure maintenance and vulnerabilities. Respondents noted that the highway-only PFN should take into account these interactions and impacts on the traveling public, especially if the highway-only PFN designation will increase truck traffic on those roadways.

In response, safety is the top priority for DOT and is a main goal of MAP-21's National Freight Policy. Although safety is not an express goal or factor in the designation of the highway-only PFN, each State's Strategic Highway Safety Plan (SHSP) affords a comprehensive approach and in-depth analysis for truck safety. The SHSPs are statewide, coordinated safety plans that provide a framework for reducing highway fatalities and serious injuries on all public roads. An SHSP identifies a State's key safety needs and guides investment decisions toward strategies and countermeasure with the most potential to save lives and prevent injuries. States are required to develop, implement, evaluate, and update an SHSP that identifies and analyzes highway safety problems and opportunities on all public roads.

Section 1118(b)(3) of MAP-21 requires that State Freight Plans include a description of how the plan will improve the ability of the State to meet the national freight goals established under section 167 of title 23, U.S.C., which include safety, and consideration of innovative technologies and operational strategies to improve the safety of freight movement. Sections 1118(b)(5) and (6) of MAP-21 also require consideration of routes projected to substantially deteriorate due to heavy vehicles and of areas of

reduced mobility such as bottlenecks. The interim guidance for developing State Freight Plans pursuant to MAP-21 includes numerous safety elements.

There are data sources available to help States and MPOs measure these aspects of truck safety. The FHWA will work with our partners to ensure truck safety is considered and analyzed as appropriate in the SHSPs, as well as in State Freight Plans. The FHWA believes it is important to identify critical infrastructure through a multimodal freight network and to continue working with our partners and stakeholders to encourage actions to improve truck safety for these nationally significant areas and across the Nation's roadways.

Environmental and Greenhouse Gas Emissions Considerations

Respondents noted that the highway-only PFN designation does not incorporate environmental considerations, including greenhouse gas reduction and public health. More specifically, in the description of the methods and data sources used, no data sources incorporating environmental data were used. Comments noted this could be a critical element that would validate the designations and ensure that limited funding also provides environmental and public health benefits. Comments noted that the network should directly establish environmental and public health criteria (e.g., emission reduction benefits) that are used in the designation process and later used in assessment of projects receiving funding, priority, or other benefits. Comments also noted that including environmental criteria provides additional contextual data to the network for understanding implications of a proposed project or identifying alternatives when viewed as a map overlay or other analysis.

In response, FHWA acknowledges the importance of understanding and mitigating the negative effects of freight on the environment and on communities. Freight projects, like other transportation projects, should consider and address environmental justice and access, air quality, water quality, and noise pollution, for example. With respect to mapping a freight network to reflect these aspects, however, the NFN and highway-only PFN requirements do not include factors relating to the environment or public health. The MAP-21 directed the Department to designate “not more than 27,000 centerline miles of existing roadway that are most critical for the movement of freight” in an NFN that is focused on “improved system performance for efficient movement of freight.” Further, national-level environmental data is limited in being able to offer a comprehensive assessment of these issues. In order to meet the various Federal requirements and advance human and environmental protection, the FHWA believes it is important to first identify the critical infrastructure in a multimodal freight network and then work with our partners and stakeholders to protect the environment and public health.

Designation of Private Roads and Rail lines

Several respondents discussed the inclusion of private roads and rail lines, with many calling for the incorporation of private rail systems in a multimodal PFN. However, respondents representing railroads expressed concern that there is no information as to how a designation of a facility as part of the highway-only PFN will be used in the future. As discussed more generally in the previous section on “NFN Use by Freight Stakeholders in the Future,” commenters urged DOT to define the highway-only PFN’s purpose before determining whether to include private infrastructure on the

highway-only PFN or the NFN. Railroad stakeholders were concerned that Congress would establish minimum investment requirements or restrict future uses of the rail infrastructure. They questioned whether designation of private rail facilities would have consequences for funding decisions for these facilities, impact the ability to shift infrastructure funding to non-designated facilities, or result in freight user fees.

In response, FHWA acknowledges there are potential challenges related to designating private infrastructure as part of a highway-only PFN or NFN. However, because the Nation's multimodal freight system is comprised of both public and private infrastructure and the interdependencies, redundancies, and efficiencies of this entire network is relevant to understanding freight movement, it would be very beneficial to national and regional planning to include both types in a multimodal freight network. This is why we are concurrently and simultaneously releasing the draft Nation Freight Strategic Plan. The FHWA will continue to consider the implications of designating private and non-Federal infrastructure as they relate to the goals, objectives, and a future purpose of an MFN.

Intermodal Connectors

Some respondents supported incorporating all intermodal connections, arguing that this was imperative in building a seamless highway-only PFN. Respondents also highlighted the importance of having an updated listing of NHS freight intermodal connectors on the highway-only PFN map. Respondents recommended that intermodal connectors, specifically if they are adjacent to a trade gateway, major industrial, distribution and consumption area, seaport, river terminal or designated freight corridor, be prioritized for inclusion in the final highway-only PFN. Specific comments requested

the inclusion of marine highways and urban intermodal connectors. Respondents also supported establishing a formal process for designating critical urban and rural freight routes that include first and last miles and/or intermodal connectors.

Comments touched on the need to include in the highway-only PFN more than just the intermodal connectors occurring in population centers of 200,000 or more. While the majority of commenters understood why FHWA chose to use the metric of AADTT to identify which segments of the NHS would appear on the highway-only PFN, there was confusion about why AADTT was not also used to measure and select intermodal connectors. Commenters were concerned with the fact that data sources used to analyze the intermodal connectors are incomplete. The respondents strongly recommended that FHWA consult with State DOTs, which, by working with their regional and local partners could assist the Federal Government in identifying routes that will ensure network connectivity to nationally significant intermodal facilities.

In response, FHWA agrees that NHS intermodal connectors are vital elements of the NFN. If the highway-only PFN was not mileage-constrained at 27,000 miles, priority consideration would be given to including all relevant urban and non-urban NHS freight intermodal connectors (these are included in the 41,518 mile comprehensive network). To adhere to the mileage cap, FHWA excluded those not meeting the AADTT threshold from the highway-only PFN. Regarding data, FHWA's listing of NHS intermodal connectors is current. However, FHWA does not have comprehensive data on the conditions and performance of each NHS intermodal connector. The FHWA supports efforts by infrastructure owners to collect comprehensive data on these facilities and update it on a frequent basis to help measure the performance of these connectors. The

FHWA is conducting a research study to assess the conditions and performance of a representative sample of intermodal connectors. This information will assist the agency, its partners, and infrastructure owners in better assessing the current use of freight intermodal connectors, freight connector condition and performance, and in identifying connector impediments and solutions to allocate resources for the efficient flow of goods.

Military Bases/Facilities

Respondents requested that FHWA add strategic military bases to the origins and destinations of freight movements to be considered in the highway-only PFN designation. Comments indicated this would help provide for logistics that support a strong national defense. Respondents sought inclusion of U.S. Military Power Projection Platform locations, as well as seaports and airports, because of their importance to national defense and their role as centers of significant regional economic activity. Respondents mentioned that the U.S. Army and U.S. Marine Corps have a list of power projection platforms, officially designated seaports of embarkation, and aerial ports of embarkation, that should be considered for the designation of these facilities. Respondents also noted that the Department of Defense (DOD) and the U.S. Maritime Administration have designated certain commercial seaports as “Strategic Ports” as part of the National Ports Readiness Network, because of the significant role they play in supporting port readiness, emergency operations, and cargo throughput capacity for global projection of our Armed Forces. Respondents supported FHWA’s focus on the efficiency of freight movement in the highway-only PFN and believe that a benefit to freight movement in general will be a benefit to DOD cargo movement.

In response, FHWA acknowledges the importance of a variety of modes and types of facilities for the efficient movement of freight for the U.S. Armed Forces. The FHWA believes there are various national highway systems that have already been designated to meet the specific needs of the military and transportation of equipment and supplies. These systems include the U.S. Interstate Highway System, which was in part based on roads necessary for national defense, and the Strategic Highway Network (STRAHNET). The STRAHNET and the Strategic Rail Corridor Network were established as critical to DOD domestic operations, such as emergency mobilization and peacetime movement of heavy armor, fuel, ammunition, repair parts, food, and other commodities to support U.S. military operations. As a result, FHWA does not think access to every military base or strategic port needs to be part of the highway-only PFN. The DOT will consider how best to include them on the MFN. The FHWA has identified a number of intermodal connectors under the 41,000 comprehensive networks that connect to military bases/facilities and will include these NHS freight intermodal connectors in future designations of the highway-only PFN if the mileage cap is increased. In addition, the entire mileage of the final highway-only PFN is part of STRAHNET.

National Freight Advisory Committee (NFAC)

The Secretary of Transportation established the National Freight Advisory Committee (NFAC) in 2013 to provide advice and recommendations on matters related to freight transportation in the United States. This Committee is composed of representatives from the public and private sector, local and State governments, labor unions, safety organizations, transportation organizations, freight shipping companies, and other freight stakeholder organizations. The NFAC undertook an extensive review of

the draft designation of the highway-only PFN and provided the comments and recommendations, which can be found here:

<https://www.transportation.gov/sites/dot.gov/files/docs/NFAC%20Joint%20Comment%20to%20Hwy%20PFN%20-Initial%20Comments%20Consolidated.pdf>.

The NFAC stated that it did not endorse the proposed highway-only PFN and directed its comments to both Congress and DOT. Its primary concerns were related to the size and nature of the 27,000 centerline miles limitation and the need for a multimodal freight network. The NFAC felt the draft highway-only PFN lacked critical elements of first and last mile connectors, especially in urban areas, as well as port connectors and North American gateway connections. The Committee preferred a hub- and corridor-based, multimodal approach for designation and opposed the statutory imposition of a mileage threshold. They urged DOT to proceed with a multimodal network, engaging the public and including an urban designation process. They supported the use of AADTT in a highway-only PFN. In the absence of a revised highway-only PFN, they preferred that funding be prioritized to solve truck congestion on existing freight corridors and gateways.

Regarding the lack of a stated purpose for the PFN, the NFAC felt DOT should develop goals in coordination with a variety of public and private sector stakeholders and use these goals to inform the development of the Conditions and Performance Report and the National Freight Strategic Plan. They felt that these goals must address the intended use of the highway-only PFN, whether it should have a role in prioritizing needs or justifying investment, and why it did not give full consideration to first or last mile

segments. According to the NFAC, the lack of goals impedes the ability to have a national investment strategy.

When highway-only PFN goals are established, the NFAC believes flexible investment strategies should be afforded to the States and private railroads should retain their autonomy to manage their infrastructure. They called on Congress in the next reauthorization to provide for a comprehensive data program and for access to private sector data and other sources to support freight planning. They cited the value of State Freight Plans and State Freight Advisory Committees in informing national planning and sought to make these mandatory. There was strong support for local and State leadership in designating urban freight networks. They called on DOT to consider and incorporate future trends in goods movement, and to re-designate or modify more frequently than the 10-year cycle. The NFAC urged the creation of dedicated funding from additional revenue sources to support both planning and to incentivize investment in projects.

The NFAC further recommended that DOT consider where freight should be encouraged to move as opposed to only reflecting current movements. The Committee requested the location of structurally deficient bridges or “freight restricted bridges” be considered for the highway-only PFN. They also submitted the following list of routes they felt was missing from the highway-only PFN:

- Primary high-traffic connectors between freight terminals and Interstate highways;
- Intermodal connectors, connections to logistics centers and manufacturing centers (freight origin and destination points);

- Highway segments that provide unique through-routes for 53-foot national standard tractor-trailers;
- Metropolitan components and urban connectors;
- Critical highways based on where activity is happening, not just those on the Interstate system (non-Interstate networks);
- Farm-to-market routes;
- Waterways;
- International gateways such as highway border crossings, airports, seaports, Great Lakes ports and river terminals that provide significant freight movement; and
- Interstate crossings connecting urban areas with national manufacturers and distribution centers in different states.

Highway-only PFN Data and Methodology

Section 167(c) of title 23, U.S.C., directed the Secretary to establish a NFN to assist States in strategically directing resources toward improved system performance for efficient movement of freight on the highway portion of the Nation's freight transportation system. Consistent with the national freight policy in MAP-21, DOT's goal was to designate a highway-only PFN that would improve system performance, maximize freight efficiency, and be effectively integrated with the entire freight transportation system, including non-highway modes of freight transport. The FHWA explored the development of a NFN to provide connectivity between and throughout the three elements that comprise the NFN (highway-only PFN, remainder of the Interstate System, and CRFC).

Data used for the designation of the highway-only Primary Freight Network

In undertaking the highway-only PFN designation, FHWA developed multiple scenarios to identify a network that represents the most critical highway portions of the United States freight system. The highway-only PFN was informed by measurable and objective national data. In performing the analysis that led to the development of the highway-only PFN, FHWA considered the following criteria and data sources, which are further described at the listed Web locations:

Factor	Data Source	Parameters
Origins/ destinations of freight	FAF 3.4 http://faf.ornl.gov/fafweb/Extraction0.aspx	Connect top origins/ destinations
Freight tonnage and value by highways	FAF 3.4 http://faf.ornl.gov/fafweb/Extraction0.aspx	Include top routes by weight of freight transported; Include top routes by value of commodity transported
Percentage of AADTT on principal arterials	HPMS 2010 AADTT http://www.fhwa.dot.gov/policyinformation/hpms.cfm	Include top routes by percentage of AADTT on principal arterials
AADTT on	HPMS 2010 AADTT	Include top routes by

principal arterials	http://www.fhwa.dot.gov/policyinformation/hpms.cfm	AADTT on principal arterials
Land and maritime ports of entry	<p>USACE</p> <p>U.S. Army Corps, Navigation Data Center, special request, October 2012 via BTS</p> <p>MARAD</p> <p>http://www.marad.dot.gov/documents/Container_by_US_Customs_Ports.xls</p> <p>BTS Transborder data</p> <p>http://www.bts.gov/programs/international/transborder/TBDR_QuickSearch.html</p>	<p>Connect top seaports and river terminals ranked by weight and values</p> <p>Connect top seaports and river terminals ranked by number of 20- foot equivalent unit containers (TEUs)</p> <p>Connect top land ports for both weight and values</p>
Access to energy exploration, development, installation or	<p>EIA (U.S. Energy Information Administration)</p> <p>http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/maps/maps.htm#geodata</p>	<p>Include access to coal basins, top coal mines, coalbed methane fields, natural gas production</p>

production areas	<p>Pennwell Mapsearch data via Pipeline and Hazardous Materials Safety Administration (PHMSA) http://www.mapsearch.com</p> <p>Pennwell Mapsearch data via Pipeline and Hazardous Materials Safety Administration (PHMSA) http://www.mapsearch.com</p> <p>Pennwell Mapsearch data via Pipeline and Hazardous Materials Safety Administration (PHMSA) http://www.mapsearch.com</p>	<p>locations, gas and oil exploration areas</p> <p>Include access to oil refineries and distribution centers</p> <p>Include access to pipeline terminal locations</p> <p>Include access to biodiesel and ethanol plants</p>
Population centers	<p>2010 Census</p> <p>http://www.census.gov/cgibin/geo/shapefiles2010/main</p>	<p>Connect top urbanized areas; Utilize Census Urbanized Area Boundary for geographic areas</p>
Network connectivity	<p>FAF 3.4</p> <p>http://faf.ornl.gov/fafweb/Extraction0.aspx</p>	<p>Reduce gaps by connecting highway-</p>

		only PFN segments to each other or to the Interstate System, or begin/end at access point
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Methodology used for the designation of the highway-only Primary Freight Network

The FHWA developed the following methodology with the intention of generating a network that could include as many of the MAP-21 criteria as practicable. The FHWA undertook extensive research and numerous approaches to better understand and model the criteria. This research informed our finding that compliance with the mileage cap yields a network that does not sufficiently accommodate the full set of criteria. In order to comply with the mileage cap while still accommodating the statutory criteria, FHWA developed a methodology that prioritized the application of the criteria and set thresholds within the data sets. The FHWA used the following methodology to develop the highway-only PFN:

(1) Used the FAF and HPMS data sets to generate the top 20,000 miles of road segments that qualified in at least two of the following four factors: value of freight moved by highway; tonnage of freight moved by highway; AADTT on principal arterials; and percentage of AADTT in the annual average daily traffic on principal arterials.

(2) Analyzed the segments identified in Step 1 and gaps between segments for network connectivity. Created the network by connecting segments if the gap between segments was equal to or less than 440 miles (440 miles being the distance a truck could

reasonably travel in 1 day). Eliminated a segment if it was less than one-tenth of the length of the nearest qualifying segment on the highway-only PFN.

(3) Identified land ports of entry with truck traffic higher than 75,000 trucks per year. Connected these land ports of entry to the network created in Steps 1 and 2.

(4) Identified the NHS Freight Intermodal Connectors within urban areas with a population of 200,000 or more.³ The NHS Freight Intermodal Connectors included any connectors categorized as connecting to a freight rail terminal, port, river terminal, or pipeline. In addition, these NHS Freight Intermodal Connectors included routes to the top 50 airports by landed weight of all cargo operations (representing 89 percent of the landed weight of all cargo operations in the U.S.). Connected the NHS Freight Intermodal Connectors back to the network created in Steps 1 and 2 along the route with the highest AADTT using HPMS data.

(5) Identified road segments within urban areas with a population of 200,000 or more that have an AADTT of 8,500 trucks/day or more.⁴ Connected segments to the network established in Steps 1 and 2 if they were equal to or greater than one-tenth of the length of the nearest qualifying segment on the highway-only PFN. Removed segments not meeting this rule as they were more likely to represent discrete local truck movement unrelated to the national system.

(6) Analyzed the network to determine the relationship to population centers, origins and destinations, ports, river terminals, airports, and rail yards and added minor network connectivity adjustments.

³ The Census defined urban areas (UZAs) were used rather than the adjusted UZAs since these were not available at the time of the analysis.

⁴ Ibid.

(7) Analyzed the road systems in Alaska, Hawaii, and Puerto Rico using HPMS data. These routes would not otherwise qualify under a connected network model but play a critical role in the movement of products from the agriculture and energy sectors, as well as international import/export functions for their States and urban areas and added roads connecting key seaports to population centers.

(8) Analyzed the network to determine the relationship to energy exploration, development, installation, or production areas. Since the data points for the energy sector are scattered around the United States, often in rural areas, and because some of the related freight may move by barge or other maritime vessel, rail, or even pipeline, FHWA did not presume a truck freight correlation.

(9) Steps 1 through 8 resulted in a network of 41,518 centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads.⁵ In order to obtain the 27,000 centerline miles, FHWA identified those segments with the highest AADTT. These road segments represented on the final highway-only PFN map comprise 26,966 miles of centerline roads.

Final highway-only Primary Freight Network Map

The FHWA has posted the details of the final initial highway-only PFN, including the 26,966-mile highway-only PFN map, State maps, and lists of designated routes and

⁵ Readers should note the 2011 HPMS database and the current FAF database differ in the delineation and exact geo-location of the NHS system. This may result in plus/minus 1-2% variation on the total mileage because the mileage is based on the geospatial network and actual mileage reported by States may vary due to vertical and horizontal curves that are not always accurate in GIS databases. The DOT will look to integrate the 2011 HPMS database with the FAF database to reduce variation in future iterations.

tables of mileage by State at:

<http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>.

This final highway-only PFN, which is unchanged from the draft released in November 2013, attempts to reflect the many criteria established in MAP-21 while also complying with the mileage cap. As a result, the highway-only PFN results in an unconnected network with major gaps in the system, including components of the global and domestic supply chains. Therefore, DOT is concurrently and simultaneously developing an MFN as part of the National Freight Strategic Plan that better represents the complex multimodal freight system in the U.S. and has proposed the GROW AMERICA legislation that is responsive to the many public comments outlined in this notice.

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Gregory G. Nadeau
FHWA Administrator

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